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Dehydroepiandrosterone (DHEA) replacement reduces growth hormone (GH) dose requirement in female hypopituitary patients on GH replacement. [Clin Endocrinol \(Oxf\). 2006; 65\(5\):673-80](#) (ISSN: 0300-0664). Brooke AM; Kalingag LA; Miraki-Moud F; Camacho-H??bner C; Maher KT; Walker DM; Hinson JP; Monson JP. Centre for Clinical Endocrinology, William Harvey Research Institute, St.Bartholomew's Hospital, QMUL, London, UK.

OBJECTIVE: GH dose requirement is lower in ACTH replete compared with ACTH deficient hypopituitary patients suggesting that adrenal androgens may augment IGF-I generation for a given GH dose. This study aimed to determine the effect of dehydroepiandrosterone (DHEA) administration on GH dose requirements in hypopituitary adults. **DESIGN:** A double blind placebo controlled trial was conducted adding 50 mg DHEA to the standard replacement of hypopituitary patients, including GH, over an initial 6 months, followed by an open phase study of 6 months DHEA replacement and a final 2 month washout phase after DHEA withdrawal. The dose of GH was adjusted to achieve a constant serum IGF-I. **PATIENTS:** Thirty female and 21 male hypopituitary patients were enrolled. Data from 26 women and 18 men were analysed after patient withdrawal. **MEASUREMENTS:** The primary outcome objective was the GH dose required to achieve a stable serum IGF-I. Secondary outcome measures were lipoprotein profiles, insulin, insulin sensitivity, IGFBP-3, waist/hip ratio and indices of bone remodelling.

RESULTS: DHEA replacement in female patients lead to a 14.6 +/- 20% reduction in the dose of GH for a constant serum IGF-I (P < 0.05, 95% CI: 1.8, 32.7). This was maintained for 12 months and there was a significant fall in serum IGF-I two months after withdrawal of DHEA. There was no change in the male group (IGF-1 levels were continued at the elevated level achieved with DHEA).

CONCLUSIONS: DHEA replacement may reduce GH dose requirements in female hypopituitary patients.